

Calibration technique of a BEMF detector

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ABSTRACT

5 The present invention relates to the positioning of the read/write
transducer heads of an hard disk (HD) in a designated landing zone when
requested or when the electrical power is removed from the drive. In
particularly it relates to the detection of the back electromotive force
(BEMF) of the motor involved in the positioning of the read/write
transducer heads. According to an embodiment of the present invention a
10 BEMF detection circuit for a voice-coil motor operative to continually
generate a signal proportionally to the velocity of said voice-coil motor
comprises a algebraic summing node producing at its output the BEMF of
the voice-coil motor and receiving: a first voltage proportional to the voltage
across the voice-coil motor; a second voltage representing the product of a
15 first multiplier factor and a voltage proportional to the current in the coil; a
third voltage representing the product of a prefixed bias voltage V_{ref} and a
second multiplier factor; said third voltage is calibrated by a single
calibration circuitry operative to calibrate said second multiplier factor in
response to a calibration control signal, in order to cancel said second
20 voltage.